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ALASKA ECONOMIC TRENDS

laska Department of Labor Bill Sheffield, Governor, State of Alaska

1 The Consumer Price Index: An Overview

ALASKA ECONOMIC TRENDS

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1983.

P/ Denotes preliminary estimates.

R/ Denotes revised estimates.

THE CONSUMER PRICE INDEX: AN OVERVIEW

By John Boucher

The Consumer Price Index (CPI) is the most frequently used statistic among the thousands generated by the federal government. It is the most common indicator of changes in the "cost of living", and is used as an escalator in numerous contracts, leases and government entitlement programs. In a world where economic statistics do not generally attract much attention, the CPI is a media darling, regularly garnering front page headlines when it is released. The CPI's high profile has made it fair game for critics. Perhaps worst of all, the rather superficial treatment the CPI can receive in the media leads to misconceptions and misuses of it on the part of the public. This article will attempt to explain the CPI in greater detail and deal with some of the common misconceptions.

First of all, there are two types of CPI's available. The CPI-U is for the urban consumers, and approximates the buying habits of 80% of the population. The CPI-W is for wage and clerical workers and approximates the buying habits of 40% of the population. These CPI's are based on different "market baskets" of goods and services which were arrived at by a survey of consumer buying habits last conducted in 1972. The CPI-U and CPI-W are available for both the nation and the areas which make up the national sample.

The Anchorage urban area is the only local community or area in Alaska for which a CPI is calculated. Two common misconceptions are that the CPI is calculated for just about every community and that the CPI represents a statewide sample. The Bureau of Labor Statistics, who is ultimately responsible for which areas have a CPI and which do not, only selects large metropolitan areas in which to take regular CPI samples. In general, the Bureau's policy is that the sample must be large in order for the data to be accurate. Metropolitan areas offer the size necessary to create a good sample of prices while also allowing the data to be collected relatively inexpensively. The Alaskan CPI user should be aware that the Anchorage CPI only gives information about price changes in the Anchorage area and it is not intended to be a measure of statewide or other local price changes. It is a common practice to assume that a change in the Anchorage CPI would indicate a similar change for other communities. Given the sparseness of comprehensive cost of living data for other communities throughout the state, this is an acceptable practice if one knows the limitations of the data.

Another common mistake made in regards to the CPI is that a dollar value is attached to the index. The CPI has never been a measure of how much it costs to live in one area of the country as opposed to another. The CPI is a measure of prices and how they have changed over a given period of time.

For example, take the Anchorage and Seattle CPI-U for March and May of 1984:

	March 1984	May 1984	2 Month Percentage Change
Anchorage	274.4	275.3	0.3
Seattle	310.2	313.0	0.9

It is commonly assumed that the CPI's above connote some dollar value; i.e., what cost $310.20 in Seattle in March of 1984 cost only $274.40 in Anchorage during that same month. This is not correct, no dollar values are implied in the CPI. What the CPI measures is the change in prices in a certain location. What the above data says is that prices in the Seattle area rose at a faster rate than prices rose in the Anchorage area from March to May. Inflation therefore was more predominant in the Seattle area during this period.

It should also be noted that the Bureau of Labor Statistics official recommendation is that "because local area indexes are based on smaller samples they are subject to substantially more sampling and other error than national indexes, BLS strongly urges users to consider the use of the national indexes in escalator agreements". Perhaps in an effort to encourage the use of the national index, BLS is planning on publishing some local area CPI's less often beginning in 1987. The Anchorage area index will be published only semi-annually beginning in that year.

Using the CPI to Measure Inflation's Impact

The CPI can be a valuable tool in measuring the impact changing prices have on the average consumer's income. Proper use of the CPI is a necessity in these instances because improper uses of the index numbers produce less accurate measurements of the impact prices have on a consumer. Some very simple rules apply for the proper uses of the CPI.

Always use the annual average CPI percentage change when measuring the impact inflation has on a consumer's expenditures. The common error made is to take a measurement at two points in time, calculate a percentage change and assume that this was the inflation rate for that period. The following example will help to illustrate why the annual average should be used. Let's assume that the January 1983 CPI was 100.0 and the January 1984 CPI was 106.0 with these two observations many users would arrive at an inflation rate in the following manner.

(106.0 - 100.0)/100 = 6/100 = .06 or 6% inflation

ALASKA
HOURS AND EARNINGS
FOR
SELECTED INDUSTRIES 1/ 2/

	Average Hourly Earnings			Average Weekly Hours			Average Weekly Earnings		
	p/ 6/84	r/ 5/84	6/83	p/ 6/84	r/ 5/84	6/83	p/ 6/84	r/ 5/84	6/83
Mining	$23.75	$24.18	$23.52	47.8	47.9	50.3	$1135.25	$1158.22	$1183.06
Contract Construction	24.48	24.67	23.30	42.0	40.5	45.6	1028.16	999.14	1062.48
Manufacturing	11.63	13.20	11.62	38.4	33.8	41.2	—	—	—
Food & Kindred Products	7.64	8.50	7.82	36.9	28.0	42.3	281.92	238.00	330.79
Lumber & Paper Products	16.70	16.45	16.47	40.0	39.2	39.7	668.00	644.84	653.86
Trans. Comm. & Utilities	15.65	15.30	15.68	39.4	37.9	38.5	616.61	579.87	603.68
Trade	10.38	10.51	10.33	35.7	35.2	35.7	370.57	369.95	368.78
Wholesale	12.40	12.11	11.80	37.9	36.9	38.4	469.96	446.86	453.12
Retail	9.56	9.88	9.71	34.9	34.5	34.6	333.64	340.86	335.97
Finance-Ins. & R. Estate	—	—	—	—	—	—	379.20	371.91	341.06

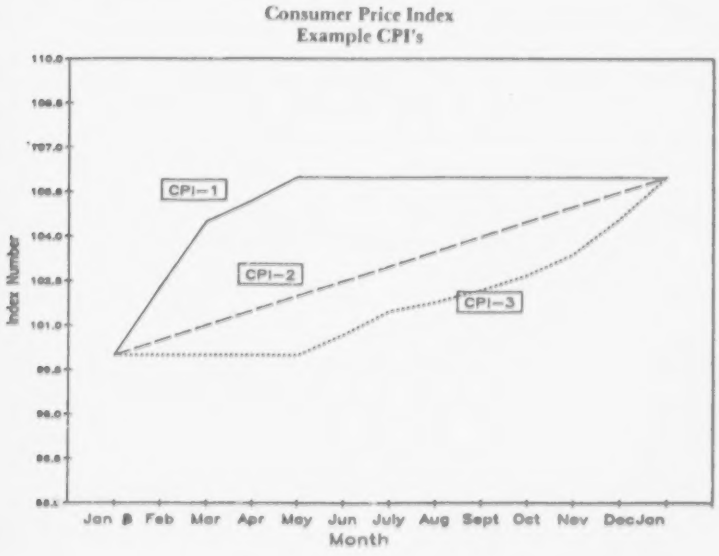
1/ Prepared in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor

2/ Excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

The users error is not one of mathematics, the formula used is correct, but the error is one of omission. Consider the example graphs of three CPI's and their different interim observations.

All of the CPI's have 100.0 for the January 1982 observation and 106.0 for the January 1984 observation, yet inflation in each case was much different. In CPI-3 price increases did not occur until June leaving the first five months of the year inflation free. CPI-1 shows price increases occurring until May and staying at that level for the remainder of the year. In CPI-2 prices increased at a steady rate throughout the year. Since the consumer is spending his income continuously during the year each universe would have a different cumulative impact upon the consumers income. Assuming the consumer has a fixed income, the prices indicated by CPI-1 would take the largest amount of the consumers income because prices reached their higher level sooner in the year. CPI-2 would indicate the next highest inflation rate and CPI-3 would be the lowest rate of inflation.



By using the BLS method of calculating the annual average CPI, the impact on the consumer of each CPI can be quantified. First of all, one might notice that there are 12 observations graphed in the above graph yet the Anchorage CPI is only published every other month. The other 6 observations used in calculating the annual averages are estimated in the following manner:

$$I = \sqrt{Mp * Mf}$$

Where I is equal to the index, Mp equals the index for the month prior to the month being estimated and Mf equals the index for the month following the month being estimated.

When the six index numbers have been imputed for the missing observations, the annual average index number is calculated as follows:

$$12\sqrt{X1 * X2 * X3 * \ldots\ldots * X12}$$

Where X1 = the index number for the first month, X2 the index for the second month and so forth. Using the above method, the following annual average CPI's are calculated from the monthly measurement of price levels or monthly CPI's.

CPI - 1	105.0
CPI - 2	102.7
CPI - 3	101.4

This number is the annual average CPI for the example period from January 1983 to December 1983. To calculate the "inflation rate" one would then use the following formula:

$$(A - B)/B$$

Where A = the most recent periods annual average CPI and B is equal to the previous periods annual average CPI. For simplicities sake if we assume that the 1982 annual average was 97.5, the following inflation rates would be found:

CPI-1: (105.0-97.5)/97.5 = 7.5/97.5 = .077 or 7.7% inflation

CPI-2: (102.7-97.5)/97.5 = 5.2/97.5 = .053 or 5.3% inflation

CPI-3: (101.4-97.5)/97.5 = 3.9/97.5 = .040 or 4% inflation

Graphic presentation of the CPI is a tool that can better illustrate the impact of price changes. Oftentimes the CPI is used as a measure to predict future inflation. Frequently future inflation is predicted based on last year's rate. If we extrapolate the three lines on the graph into 1984 you can see the weakness of this argument. In CPI-1 for example you have the highest inflation rate in 1983 but prices were stable during the last 7 months indicating that a lower inflation rate might be expected during 1984. CPI-3 on the other hand had dramatic increases in prices during the last several months of the year indicating that prices could increase at a much faster rate during the next 12 months. Only with CPI-2 would you expect inflation to remain constant during the next 12 month period.

Developing a thorough knowledge of what the CPI measures and how to properly use it is the most important rule in regards to the CPI. When you are involved in bargaining or negotiating a contract the CPI will undoubtedly be useful in arriving at a fair settlement. If the other party has a more thorough knowledge of the index you may find yourself negotiating from a weaker position simply because you have to accept their numbers at face value.

Remember also that the Department of Labor, Research & Analysis Section exists to assist you in matters such as these. If you want to know what the CPI has been doing for a certain period, or you need an explanation of what a CPI number means, don't hesitate to call upon us to answer your questions.

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ALASKA

By Ed Eboch

Economic activity in Alaska continues to be strong, as evidenced by growth in nonagricultural wage and salary employment, but the growth trend seems to be slowing. Employment in August 1984 is above August 1983 but the year to year growth has begun to narrow. If the contraction in construction occurs as anticipated later this year, we may see year to year declines in monthly total nonagricultural wage and salary employment. The decline is expected to be of a short duration, partially offset by the impact additions to Alaska's military personnel will have on the trade and service sectors.

Construction

Construction employment for August was exceptionally robust given the evidence of overbuilding in both the residential and commercial sectors. Preliminary estimates when contrasted to the past several months indicate August 1984 construction employment as being greater than the same period in 1983. This employment activity is largely a result of projects started last year or earlier this year as permits for new building starts are down considerably from the levels of the past two years. With the surplus of office space and residential housing and the rapid expansion of malls in most larger communities there should be little incentive for private construction to maintain the level of activity we have seen the past several years.

With lower oil prices, the state's June oil revenue forecasts have suggested the possibility of a state budget shortfall in revenues by the end of FY 85. The problem will not be serious unless prices fall further, but it means less monies available for construction projects in FY 86. In addition there is no longer the backlog of state funded projects that have existed in past years.

Oil

The lower than previously forecast prices of crude oil and the fear of further drops in oil prices have resulted in a go slow attitude about exploration and development in Alaska. Payments made during the recent Beaufort Sea oil and gas lease sale should not be interpreted as a signal that exploration and development will continue at the pace of past years. This is the third sale in the Beaufort Sea and given the amount of information known about the area the amounts paid were not impressive. Many tracks drew no bids. Exploration will be pursued but at a slow pace until the price of crude oil improves.

While construction activity on the North Slope will be down in 1985 the 1986 and 1987 seasons should be near the 1982/83 levels. The Lisburne and

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
BY PLACE OF WORK
ALASKA

	P/	R/	CHANGES FROM:		
	8/84	7/84	8/83	7/84	8/83
Nonag. Wage & Salary	236800	234300	233700	2500	3100
Mining	8300	8200	8800	100	-500
Construction	24800	23400	26100	1400	-1300
Manufacturing	19700	20300	21500	-600	-1800
Food & Kindred Prod.	13800	14600	15400	-800	-1600
Lumber & Paper Prod.	2700	2500	3000	200	-300
All Other Mfg.	3200	3200	3100	0	100
Trans. Comm. & Utilities	20600	20500	20000	100	600
Trucking & Whseing.	2600	2500	2400	100	200
Water Transportation	1700	1700	1700	0	0
Air Transportation	6400	6600	6400	-200	0
Other Trans. Comm. & Utilities	9900	9700	9500	200	400
Trade	45900	45600	44300	300	1600
Wholesale	9100	8900	8300	200	800
Retail	36800	36700	36000	100	800
Gen. Merchandise & Apparel	5100	5200	4900	-100	200
Food Stores	6000	6000	5800	0	200
Eating & Drinking Places	13200	13000	12900	200	300
Other Retail Trade	12500	12500	12400	0	100
Fin.-Insurance & R. Estate	11600	11500	11000	100	600
Services & Misc.	43400	42600	41400	800	2000
Government	62500	62200	60600	300	1900
Federal	18800	18600	18200	200	600
State	18600	18700	18100	-100	500
Local	25100	24900	24300	200	800

Prepared in cooperation with the U.S. Bureau of Labor Statistics.

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1983.

P Denotes premilinary estimates.

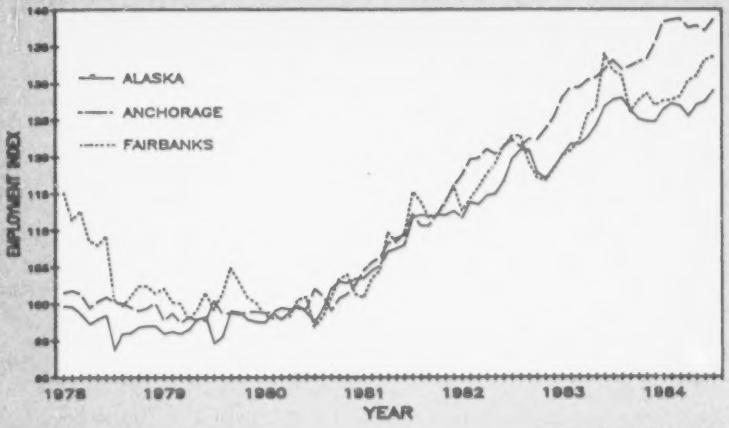
R Denotes revised estimates.

Kuparuk development projects, already beyond the planning stages, will continue. Even these projects are at risk should oil prices drop further or should costs be driven up as a result of delays in permitting. Other potential development projects are being deferred until the profit outlook becomes more attractive. Given the length of time it takes to move a project from planning to implementation no additional significant activity is expected in oil or gas development for several years.

Summary

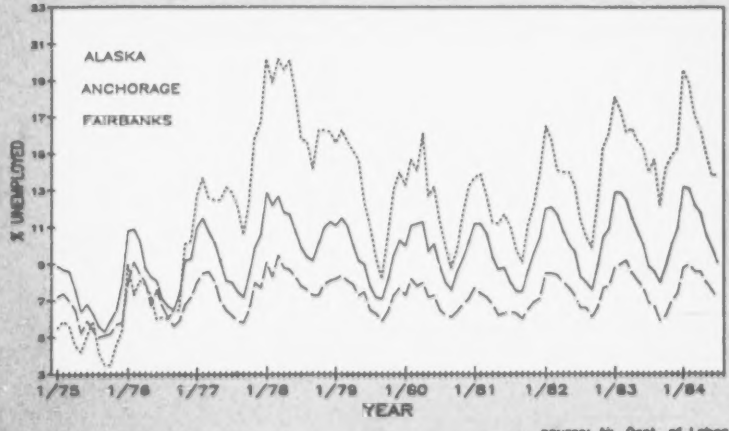
With the smallest sealift in several years, reduced state revenues and the excess capacity in residential and commercial space, construction employment is expected to drop below last year levels as the year progresses. Offsetting this drop somewhat are the competitive bids now being received for state projects. Recent bids have been below the engineer's estimates. Current labor negotiations indicate possible wage savings to contractors. Should this trend in lower construction costs continue the State may get more "construction employment" from the same number of dollars. This will not be sufficient to significantly offset the declines anticipated in construction employment.

Composite Nonag. Employment Indexes
Seasonally Adjusted
1978 to Present



source: Ak. Dept. of Labor

UNEMPLOYMENT RATES
NOT SEASONALLY ADJUSTED
1975 to Present



source: Ak. Dept. of Labor

ANCHORAGE-MATSU

By Greg Huff

Anchorage Retail Trade

According to the Bureau of the Census there were 1,838 retail trade establishments in Anchorage during 1982. Retail trade establishments are those businesses selling merchandise for personal or household consumption or rendering services incidental to the sale of goods. Retail trade firms include building material, hardware, garden supply, food, apparel and accessory' furniture and equipment, general merchandise, and miscellaneous retail stores as well as eating and drinking places, mobile home dealers, automotive dealers and gasoline service stations.

The Bureau of the Census conducts a retail trade census across the country at five year intervals. Data for the 1982 Anchorage retail trade census collected in 1983 provides important insight on the structure and function of Anchorage's retail trade sector. The census also contains the only comprehensive retail trade sales data for Anchorage. This article focuses on the prominent characteristics and changes in Anchorage's retail trade industry. A comparison between 1982 Anchorage retail trade census and those for Alaska and the U.S. will be presented in next month's *Alaska Economic Trends.*

Of the 1,838 Anchorage retail trade establishments in 1982, 61% were unincorporated businesses. Individual proprietorships accounted for nearly 9 out of 10 of the unincorporated businesses and partnerships made up the remainder. Sixty percent of all retail trade establishments had payrolled employers in 1982 but these firms accounted for 98.5% of total sales.

Since the retail trade census is conducted at five-year intervals, the census reflects the net change over that period although there may have been deviations from the longer term trends during the interim years. The census data reveals longer term trends but tells little about shorter term cyclical trends. In Anchorage this is particularly true because the 1977 to 1980 period was a lull period in the Anchorage economy. In 1977 the Anchorage economy was still strong from the pipeline construction but growth was moderate for the few years after 1977. By 1980 the injection of oil dollars in the economy had induced the beginning of another high growth period.

Overall, the 1982 Anchorage retail trade census shows a changing and growing retail trade sector. This growth in retail trade activity was caused by increases in population, real per capita incomes, construction activity and increased tourism. During 1982 Anchorage retail trade sales totaled

$1.8 billion. Sales adjusted for inflation, increased 25% from the 1977 levels, while per capita expenditures adjusted for inflation increased from $5,335 in 1977 to $5,842 in 1982. Inflation adjusted sales per firm rose from $72,704 to $75,225 and the number of employees per firm increased from 13.7 to 14.3. One new establishment was introduced for every 5 existing establishments from 1977 to 1984, while total retail trade employment rose 22% over this period.

Sales grew fastest in the building material, hardware and garden supply retail group; rising from $69 million in 1977 to $206 million in 1982 ($138 million adjusted for inflation). In 1977 this group represented 7.3% of total retail sales but as a result of the rapid growth in sales this group increased its share of total sales to 11.7% by 1982. Not only were there more firms in 1982 but sales per firm increased by 57%. This increase in sales lead to rapid growth both in the number of firms and in retail trade employment.

The number of jobs in the building supply, hardware and garden supply group increased 105% over the 5-year period. This was faster than any other retail sector. The rapid sales and employment growth was also reflected in the rise from 10.3 to 16.5 in the number of employers per firm. The number of establishments grew 28%. Overall, the building materials, hardware and garden supply group has increased its size in terms of sales, employment and the number of establishments, echoing the higher building activity in late 1980-1982 period.

The general merchandise sector is the largest retail group in Anchorage. They have the greatest number of employees per firm and most sales per firm. In 1982 there was an average of 130 employees per firm and sales averaged $17.8 million per establishment (four times greater than the next highest of $4.8 million per automotive dealer). However, this sector represents the smallest proportion of firms. The actual number of establishments has been on the decline for over a decade dropping from 18 firms in 1972 to 13 firms in 1982.

Purchases at food stores accounted for 17% of the total retail sales in 1982, some $296 million. This percentage has fallen since 1977 when food store sales represented 22% of total retail sales. As the Anchorage retail trade sector diversifies, there is a wider array of retail establishment available to the Anchorage resident. The number of establishments classified as food stores dropped from the 1977 levels of 101 establishments to 91 in 1982, but remained substantially above the 1972 number of 58. This may indicate the phenomena of the chain stores replacing the smaller independent grocery stores. This is evidenced by the increase of employee per firm from 16 to 22. Although the actual number of establishments declined over that period employment grew 20% and sales by 44%.

The automotive dealers had the highest sales to employee ratio among the retail trade industry. In 1982 this amounted to nearly $280,000 per employee. Automobiles are a big ticket item so each individual purchase represents a substantial dollar purchase. Auto sales account for 15% of total retail sales. Although sales have increased, the number of firms and employees remained stable over the period.

Table I
Summary Statistics
Anchorage Retail Trade Census
1982

	# of Firms	Sales (100 Thous.)	Payroll	Employees
Total Retail Trade	1,838	1,795	226	15,800
Building Material, Hardware, Garden Supply	51	206	22	842
General Merchandise	13	232	29	1,697
Food Stores	91	296	31	2,003
Automotive	57	267	28	957
Gasoline Service Station	75	118	7	526
Apparel & Accessory	104	82	10	787
Furniture, Home Furn. and Equip.	90	85	11	677
Eating and Drinking	307	217	60	6,309
Drug and Proprietary Stores	26	84	9	434
Misc. Retail Stores	293	180	20	1,568
Establishments Reporting no Emp.	731	26	n/a	n/a

The characteristics of gasoline service stations have changed in response to the conversion from full-service stations to self-service stations. The changes are reflected in the fall in employment per firm and overall employment has declined despite the number of service stations increasing. Sales, per firm jumped, increasing from $50 million in 1977 to $80 million in 1982 inflation adjusted dollars. Both increasing gasoline prices and increased market size contributed to this growth in sales.

The apparel and accessory stores also experienced rapid gain in sales. Inflation adjusted sales over the census period increased by 65%. An increase in sales per firm and an increase in the number of establishments pushed apparel and accessory store employment up 25%. These stores tend to be small in comparison to the average retail trade establishments, averaging 7.5 employees per firm in 1982, up from 5.8 in 1977. Related to the upsurge in the residential home market the furniture, home furnishing and equipment stores have registered an increase of 60% inflation adjusted sales over the census period. Increased sales per firm and gains in the number of firms have resulted in an increase of 74% in employment for these firms.

LABOR FORCE BY REGION AND CENSUS DIVISION

	Labor Force			Unemployment			Rate			Employment		
	P 8/84	R 7/84	8/83	P 8/84	R 7/84	8/83	P 8/84	R 7/84	8/83	P 8/84	R 7/84	8/83
Alaska Statewide	254509	255998	249767	21519	23360	21528	8.5	9.1	8.6	232990	232638	228239
Anchorage-MatSu Region	129762	129833	123901	9461	9862	9086	7.3	7.6	7.3	120301	119971	114815
Anchorage	117234	117229	111642	8082	8376	7467	6.9	7.1	6.7	109152	108853	104175
Matanuska-Susitna	12528	12604	12259	1379	1486	1619	11.0	11.8	13.2	11149	11118	10640
Gulf Coast Region	31789	32135	31564	2527	3021	2540	7.9	9.4	8.0	29262	29114	29024
Cordova	1618	1640	1605	52	82	51	3.2	5.0	3.2	1566	1558	1554
Kenai	16610	16861	16505	1700	2027	1717	10.2	12.0	10.4	14910	14834	14788
Kodiak	6971	7006	6878	289	358	251	4.1	5.1	3.6	6682	6648	6627
Seward	2298	2296	2253	211	220	183	9.2	9.6	8.1	2087	2076	2070
Valdez	4292	4332	4323	275	334	338	6.4	7.7	7.8	4017	3998	3985
Interior Region	33412	33891	33485	3990	4625	4758	11.9	13.6	14.2	29422	29266	28727
Fairbanks	27265	27719	27452	3284	3866	4037	12.0	13.9	14.7	23981	23853	23415
Southeast Fairbanks	2692	2694	2640	286	301	291	10.6	11.2	11.0	2406	2393	2349
Upper Yukon	852	876	841	135	162	141	15.8	18.5	16.8	717	714	700
Yukon-Koyukuk	2603	2602	2552	285	296	289	10.9	11.4	11.3	2318	2306	2263
Northern Region	11187	11390	12068	993	1057	1181	8.9	9.3	9.8	10194	10333	10887
Barrow-North Slope	2935	2959	3204	185	172	267	6.3	5.8	8.3	2750	2787	2937
Kobuk	3583	3673	3841	419	466	462	11.7	12.7	12.0	3164	3207	3379
Nome	4669	4758	5023	389	419	452	8.3	8.8	9.0	4280	4339	4571
Southeast Region	35042	34609	35755	3414	3812	2908	9.7	11.0	8.1	31628	30797	32847
Angoon	500	498	519	81	90	84	16.2	18.1	16.2	419	408	435
Haines	1161	1137	1204	94	98	96	8.1	8.6	8.0	1067	1039	1108
Juneau	12654	12420	12937	1172	1239	1014	9.3	10.0	7.8	11482	11181	11923
Ketchikan	7706	7718	7454	1053	1240	544	13.7	16.1	7.3	6653	6478	6910
Outer Ketchikan	891	882	883	107	119	69	12.0	13.5	7.8	784	763	814
Prince of Wales	1601	1601	1733	138	176	213	8.6	11.0	12.3	1463	1425	1520
Sitka	4978	4839	5197	340	323	380	6.8	6.7	7.3	4638	4516	4817
Skagway	1670	1629	1834	123	123	227	7.4	7.6	12.4	1547	1506	1607
Wrangell-Petersburg	3881	3885	3994	306	404	281	7.9	10.4	7.0	3575	3481	3713
Southwest Region	13317	14140	12994	1134	983	1055	8.5	7.0	8.1	12183	13157	11939
Aleutian Islands	3473	3713	3394	160	135	147	4.6	3.6	4.3	3313	3578	3247
Bethel	4353	4624	4273	477	438	475	11.0	9.5	11.1	3876	4186	3798
Bristol Bay Borough	464	489	447	27	17	19	5.8	3.5	4.3	437	472	428
Bristol Bay	1747	1852	1682	111	85	79	6.4	4.6	4.7	1636	1767	1603
Kuskokwim	1186	1271	1167	129	130	132	10.9	10.2	11.3	1057	1141	1035
Wade Hampton	2094	2191	2031	230	178	203	11.0	8.1	10.0	1864	2013	1828

P/=Preliminary 1983 Benchmark

R/=Revised

Federal guidelines require the use of unrounded labor data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's bush localities have proportionately more of these discouraged workers.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
BY PLACE OF WORK
ANCHORAGE/MATSU

	P/	R/	CHANGES FROM:	
	8/84	7/84	8/83	7/84	8/83
Nonag. Wage & Salary	120750	120000	115800	750	4950
Mining	3600	3600	3800	0	-200
Construction	12700	12250	12700	450	0
Manufacturing	3350	3750	3300	-400	50
Trans. Comm. & Utilities	10250	10150	9650	100	600
Trade	29400	29200	27750	200	1650
Fin.-Insurance & R. Estate	8300	8300	7650	0	650
Services & Misc.	25700	25350	25050	350	650
Government	27450	27400	25900	50	1550

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
BY PLACE OF WORK
ANCHORAGE

	P/	R/	CHANGES FROM:	
	8/84	7/84	8/83	7/84	8/83
Nonag. Wage & Salary	114600	113650	110200	950	4400
Mining	3550	3550	3750	0	-200
Construction	11800	11300	11650	500	150
Manufacturing	3200	3600	3150	-400	50
Food & Kindred Prod.	950	1350	1000	-400	-50
Other Mfg.	2250	2250	2150	0	100
Trans. Comm. & Utilities	9750	9650	9100	100	650
Trucking & Whseing.	1350	1300	1250	50	100
Water Transportation	400	350	300	50	100
Air Transportation	4000	4050	3900	-50	100
Other Trans. Comm. & Utilities	4000	3950	3650	50	350
Trade	28000	27950	26550	50	1450
Wholesale	6500	6450	6000	50	500
Retail	21500	21500	20550	0	950
Gen. Merchandise	1750	1800	1750	-50	0
Food Stores	2900	2900	2500	0	400
Eating & Drinking Places	8450	8250	8050	200	400
Other Retail Trade	8400	8550	8250	-150	150
Fin.-Insurance & R. Estate	7950	7950	7350	0	600
Services & Misc.	24750	24400	24150	350	600
Government	25600	25250	24500	350	1100
Federal	10500	10250	10050	250	450
State	6200	6150	6100	50	100
Local	8900	8850	8350	50	550

Eating and drinking places represent the single largest group in retail trade in terms of the numbers of establishments and employment. Nearly one-third of all retail establishments in 1982 were eating and drinking places with 40% of the retail trade employees. This group is also increasing in size of establishment as reflected by the increase of 17 to 21 in the number of employees per establishment. Total employment rose 40% over the survey period..

Eating and drinking places are labor intensive, thus they register the lowest sales per employee ratio among the retail trade sectors, averaging $34,400 per employee compared to the industry's average of $75,200 per employee. The drug and proprietary stores were the only firms in the retail trade sector with an inflation adjusted plunge in their sales, dropping 3%. There was also a fall in employees per firm from 21 to 17. The number of firms increased 18% while employment only grew 6%. Overall, this sector was the only stagnant sector within retail trade.

Miscellaneous retail trade stores, which include liquor, sporting goods and jewelry stores represent a large percentage of the total number of retail outlets in Anchorage, but have the lowest proportion of employees per firm within the retail industry. In 1982 the ratio was 5.4 employees per establishment compared to the industry average of 14.3. This ratio actually declined from the 1977 ratio of 5.6. All other characteristics were on the plus side. Inflation adjusted sales were up 48%, number of establishments up 30%, and overall employment grew 24%.

In summary, the 1982 Anchorage retail trade census records a dynamic retail trade industry being molded by an expanding population and high income base and the general maturing of Anchorage's economy.

Table II
Summary Statistics
Anchorage Retail Trade Census
1977

	# of Firms	Sales (100 Thous.)	Employees
Retail T :de	1426	*	*
Building Materials, Hardware and Garden Supply	40	693	410
General Merchandise Stores	16	1473	2342
Food Stores	101	2052	1669
Automotive Dealers	52	1522	931
Gasoline Service Dealers	69	504	572
Apparel & Accessory Stores	86	408	629
Furniture, Home Furn. and Equipment	67	354	389
Eating and Drinking Places	267	1240	4493
Drug and Proprietary Stores	22	490	461
Miscellaneous Retail Stores	226	839	1265
Establishments Reporting no Emp.	480	*	*

* **Not available.**

FAIRBANKS/INTERIOR

By Neal Fried

Fairbanks' Service Sector

The service sector has been a leading growth industry nationally and Fairbanks is no exception. During the period from 1973 to 1982 overall employment in Fairbanks has grown 68% while services employment has increased by 90%. From preliminary employment estimates this trend has continued into 1984. All components of the service industry have grown in absolute terms. Growth in services has come as a result of a rise in income and evolution of the economy. Over the past decade, Fairbanks service industry's share of total employment has increased from 17% to 19%. There is every reason to believe the service sector will continue to be a growth industry in Fairbanks.

The definition of the service industry can be extensive and usually includes all types of activities. When references are made about the service industry, all industries but agriculture, mining, and construction are often included. In this article a more tightly defined, though still wide ranging definition is used. Throughout this article service employment will be referring to the service industry designations which appear monthly in the nonagricultural wage and salary tables. There are approximately 15 different categories which fit under the services heading including personal, recreation, health, legal and social services (See table).

Health care services is not only the largest component, but has made the greatest gains in absolute employment. Health care services has also increased its share of the service industry employment from 21% to 25%. This growth comes as a result of rising incomes, increased insurance coverage and state and federal health programs. Auto repair, though small, has increased its employment over 400%. This may be because people now keep their cars longer but it is also because gas stations, which are classified under trade, are less likely to have repair garages today.

Though hotels and lodgings, business, personal and legal services have all grown, their percentage share of employment has remained unchanged or declined. This means that these firms did not grow as fast as other firms in the service sector. This was surprising with hotels and lodgings given the growth in the tourism industry. For a number of components no comparisons can be readily made because of definitional changes or other adjustments.

With the growth of income and the expansion of the economy, the growth in the service sector comes as little surprise. The service industry in Fairbanks received an additional boost from the economic growth for the rest of the region. This industry not only provides services to the local

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
BY PLACE OF WORK
FAIRBANKS

	P/ 8/84	R/ 7/84	8/83	CHANGES FROM: 7/84	8/83
Nonag. Wage & Salary	29750	29350	29200	400	550
Mining	300	250	350	50	-50
Construction	4050	3750	4050	300	0
Manufacturing	650	650	650	0	0
Trans. Comm. & Utilities	3050	3050	3100	0	-50
Trucking & Whseing.	500	550	500	-50	0
Air Transportation	750	750	750	0	0
Other Trans. Comm. & Utilities	1800	1750	1850	50	-50
Trade	6150	6050	5900	100	250
Wholesale	1050	1000	850	50	200
Retail	5100	5050	5050	50	50
Gen. Merchandise & Apparel	450	450	400	0	50
Food Stores	800	800	750	0	50
Other Retail Trade	3850	3800	3900	50	-50
Fin.-Insurance & R. Estate	1000	1000	1000	0	0
Services & Misc.	5850	5750	5700	100	150
Government	8700	8850	8450	-150	250
Federal	2700	2800	2600	-100	100
State	3600	3650	3500	-50	100
Local	2400	2400	2350	0	50

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
BY PLACE OF WORK
INTERIOR

	P/ 8/84	R/ 7/84	8/83	CHANGES FROM: 7/84	8/83
Nonag. Wage & Salary	33650	33200	32950	450	700
Mining	450	450	550	0	-100
Construction	4150	3850	4150	300	0
Manufacturing	700	700	650	0	50
Trans. Comm. & Utilities	3800	3750	3800	50	0
Trade	6600	6500	6400	100	200
Fin.-Insurance & R. Estate	1100	1100	1050	0	50
Services & Misc.	6300	6150	6100	150	200
Government	10550	10700	10250	-150	300

economy but also provides services to much of the Interior and the Northern portion of the state. This may explain why services' employment share is larger in Fairbanks than it is statewide (19% versus 18%). Fairbanks service industry share is smaller than the nation's, which may indicate that the Fairbanks' service sector still has room to expand. Given the community's relative high income and the potential for import substitution services' share of employment should continue to rise.

Fairbanks Services Employment
1973-1983

	1973 Number	Percent of Services Employ.	1985 Number	Percent of Services Employ.
Services Employment Total	2,549	100.0	4,901	100.0
Hotels & Other Lodgings	272	10.7	458	9.3
Personal Services	144	5.6	214	4.4
Business Services	569	22.3	871	17.8
Auto Repair Services & Garages	43	1.7	188	3.8
Misc. Repair Services	28	1.1	60	1.2
Motion Pictures	•	•	•	•
Amusement & Recreation Services	•	•	•	•
Health Services	542	21.3	1214	24.8
Legal Services	72	2.8	139	2.8
Educational Services	44	1.7	57	1.2
Social Services	•	•	469	9.6
Museum & Art Galleries	•	•	•	•
Membership Organizations**	204	8.0	601	12.3
Private Households	•	•	•	•
Misc. Services**	593	23.3	436	8.9

• Nondisclosable

** Because of definitional changes, valid comparisons cannot be made.

GULF COAST

By Neal Fried

The Salmon Season

Gulf Coast's unemployment rates continued to fall in August. Some of the area's unemployment rates have dropped below 5% during the past 2 months. These very low rates of unemployment are a result of the summer salmon runs which have been underway since June and usually end by late August. Three-quarters of the fish harvesting employment in the Gulf Coast during these months can be attributed to the salmon fishery. Salmon are also harvested during May and September in the region, but the peak runs occur during late summer.

Kodiak and Cordova are the areas in the region where the unemployment rates have fallen below 5%. These low rates are as temporary as the fishing season. Within two months the rates will climb quickly, reaching double digit levels by November. The other areas in the region, Valdez and the Kenai Peninsula, have active fisheries but they are not as singularly reliant on these industries for employment and therefore experience more stable unemployment rates.

There are two ways to evaluate the salmon fishery, biologically and economically. Biologically refers to the size, number and quality of fish. Economically refers to fish prices and dollar value of the fish harvested. Results of the 1984 salmon season have been mixed but they have been on the upbeat side more often than not.

Statewide, the salmon fishery harvest was the third largest in history. Gulf Coast's harvest and Southwest Alaska's harvest have kept the region's fish processors almost as busy as last season. Good Southwest harvests benefit Gulf Coast processors that process salmon from the Southwest. The average fish processing employment in the Gulf Coast region during the three big salmon months was 5,100 in 1983, compared to 5,050 in 1984. With some improvements in prices and good volumes the dollar value of the catch this year could be better than last year.

There are no 1984 employment figures for those participating in actual salmon harvesting. They are not counted in our wage and salary figures as fish processing employees. The latest figures for those individuals involved in fish harvesting are for 1982, when average employment for this group was estimated to be 4,768 for the summer salmon season. Fishing related employment rises above the 10,000 mark during the summer salmon season, and peaks at around 11,000 during July or August in the

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
BY PLACE OF WORK
GULF COAST

			CHANGES FROM:		
	P/ 8/84	R/ 7/84	8/83	7/84	8/83
Nonag. Wage & Salary	25000	24850	24850	150	150
Mining	700	700	700	0	0
Construction	2650	2550	2500	100	150
Manufacturing	6750	6750	7300	0	-550
Food & Kindred Prod.	6000	6000	6550	0	-550
All Other Mfg.	750	750	750	0	0
Trans. Comm. & Utilities	2450	2500	2400	-50	50
Trade	3700	3650	3550	50	150
Wholesale	600	600	600	0	0
Retail	3100	3050	2950	50	150
Fin.-Insurance & R. Estate	550	500	500	50	50
Services & Misc.	3500	3500	3350	0	150
Government	4700	4700	4550	0	150
Federal	550	600	600	-50	-50
State	1550	1550	1400	0	150
Local	2600	2550	2550	50	50

Gulf Coast. These numbers do not include others involved in the fishing industry, such as truckdrivers, buyers or repair operations. Though statistics for this group are not separated from their industry statistics the number is significant, pushing the overall fishing industry employment in the region far higher.

SOUTHEAST ALASKA

By John Boucher

Southeast Alaska nonagricultural wage and salary employment increased by 900 jobs in the month of August to 31,900. The August increase represented a 2.9% increase in employment over July. Last August employment in Southeast was 32,500 which meant that overall wage and salary employment has declined by 1.0% since August of 1983.

Leading all employment gainers over the month was the manfacturing industry, in particular, the food and kindred products sector. A strong pink salmon run in the southern purse seine districts contributed to the employment increase. The Northern districts of the region started the month with lower salmon returns than were predicted by the Alaska Department of Fish and Game, however, middle and late salmon runs have bolstered early low returns. Employment in this industry was near 2,500 in August, which put 1984 in the top 5 years for seafood processing employment.

As explained in the August issue of *Alaska Economic Trends* as overreporting of seafood processing employment has existed in the region from the second quarter of 1980 until recently. The historical series have now been adjusted to correct the overreporting problem. Users who are interested in a revised historical employment data series can contact the Department of Labor, Research and Analysis section.

Employment during the peak months of 1984 is running slightly behind last year in large part due to two factors. Construction is not quite as strong in the region this summer because of the completion of the hydro projects and a slowing in residential and commercial building construction. Total housing unit permits issued during the first 6 months of 1984 in Juneau and Ketchikan were down 48% and 66% from the same period in 1983. In Sitka housing unit permits were slightly below 1983 levels while Petersburg and Wrangell were the only communities to register gains over the first half of last year. Another factor in the year to year drop is the weakness in the Southeast wood products industry. August pulp mill employment was responsible for the lion's share of the year to year drop in manufacturing as one facility was closed during the reporting period.

Trade and services employment were the bright spots in the year to year employment picture. All sectors of trade were either performing as well or better than they were in 1983. Retail trade has experienced the strongest overall growth. New eating and drinking establishments as well as the catchall miscellaneous retail trade category have contributed to employment growth. Wholesale trade is not experiencing the strong growth the retail sector has experienced due to the slowdown in construction activity over last year. Services employment is also experiencing growth in just

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
BY PLACE OF WORK
SOUTHEAST ALASKA

	P/	R/	CHANGES FROM:		
	8/84	7/84	8/83	7/84	8/83
Nonag. Wage & Salary	31900	31000	32250	900	-350
Construction	2350	2150	2600	200	-250
Manufacturing	4700	4300	5100	400	-400
Food & Kindred Prod.	2450	2000	2450	450	0
Lumber & Paper Prod.	2000	2050	2400	-50	-400
All Other Mfg.	250	250	250	0	0
Trans. Comm. & Utilities	2350	2350	2400	0	-50
Trade	5200	5150	5000	50	200
Wholesale	500	500	500	0	0
Retail	4700	4650	4500	50	200
Fin.-Insurance & R. Estate	1050	1050	1050	0	0
Mining, Services & Misc.	4800	4600	4650	200	150
Government	11450	11400	11450	50	0
Federal	2350	2350	2450	0	-100
State	5450	5500	5350	-50	100
Local	3650	3550	3650	100	0

about every sector. Hotel and motel employment, medical services and the miscellaneous services category are all up over 1983 levels.

Southeast Unemployment

Southeast Alaska had shown some steady improvements in the rate of unemployment during the year but August's 9.7% was substantially higher than the 1983 August rate. This is the second month in a row that 1984's unemployment rate was above 1983's unemployment rate. The factors mentioned above are largely responsible for the relatively high unemployment rate during the past two months. August and September traditionally have the lowest unemployment rates during the year so look for unemployment to be close to August's level next month and then begin to increase sharply in the period from October to December.

Although the 1984 unemployment rate has yet to be determined, if the first eight months are any indication unemployment in Southeast may come in slightly lower than the 1983 annual average of 12.3%. Of the eight months so far this year only three have had higher unemployment rates than for the same month during 1983. However, if the recent trend of unemployment rates above the year ago continues through December, 1984 could be a worse year for unemployment than was 1983.

HOURS AND EARNINGS

By Kathleen Thomas

In order to improve the quality of the data presented in *Alaska Economic Trends*, efforts are being made to solicit new entries into the sample of businesses that report employment, payroll, and hours. Associated with this increase in the sample size is a change in the mixture of firm sizes, numbers of employees, weekly hours worked, and payroll. Depending on the magnitude of the change in sample size, average hourly earnings and average weekly hours could deviate from those figures reported for the previous month and previous year.

Consider wholesale trade where new firms comprise 33% of the total wholesale trade sample. That equates to one third more firms in the sample for the month of July than in the June sample. Average hourly earnings for wholesale trade increased 7% from June 1984. If the new firms were not included, the month to month change in average hourly earnings would have been negligible. Transportation, communication, and utilities and wholesale trade both had an infusion of new reporters, therefore, these two sectors will need to be examined closely to evaluate any resulting changes.

Average weekly hours in contract construction experienced a 5% increase over June but are still below July 1983 levels. The lumber and paper products sector of manufacturing continued to decline with average hourly earnings dropping 7% and average weekly hours dropping 10%.

ALASKA
HOURS AND EARNINGS
FOR
SELECTED INDUSTRIES 1/ 2/

	Average Hourly Earnings			Average Weekly Hours			Average Weekly Earnings		
	p/ 7/84	r/ 6/84	7/83	p/ 7/84	r/ 6/84	7/83	p/ 7/84	r/ 6/84	7/83
Mining	$23.54	$23.55	$23.64	49.5	47.9	52.5	$1165.23	$1128.05	$1241.10
Contract Construction	24.84	24.38	24.07	43.8	41.9	45.4	1087.99	1021.52	1092.78
Manufacturing	9.46	11.54	10.37	44.5	39.0	39.7	420.97	450.06	411.69
Food & Kindred Products	7.45	7.54	8.29	46.6	38.0	40.1	347.17	286.52	332.43
Lumber & Paper Products	15.58	16.70	17.39	35.9	40.0	34.8	559.32	668.00	605.17
Trans. Comm. & Utilities	15.67	15.80	16.33	40.2	38.9	39.0	629.93	614.62	636.87
Trade	10.59	10.36	10.12	37.0	36.0	36.6	391.83	372.96	370.39
Wholesale	13.43	12.58	11.85	39.2	38.3	39.1	526.46	481.81	463.34
Retail	9.44	9.45	9.43	36.2	35.2	35.6	341.73	332.64	335.71
Fin.-Insurance & R. Estate	—	—	—	—	—	—	389.90	382.04	350.13

1/ Prepared in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor

2/ Excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.